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Ken	narks:						
	Attached is a copy of the OXCART/SR-71						
	study which was prepared by Bill Fischer of						
		BOB, Herb Benington of DOD, and John					
	Parangosky of this Agency for the Directors						
	of BOB and CIA and the Secretary of Defense.						
	I believe that the author's appraisal of the						
	OXCART and SR-71 fleets is objective and						

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that the program alternatives identified by them provide reasonable choices for the decision-maker. As one would expect, however, the general thrust of the paper implies that there is no great need for the

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OXCART fleet.

I have appended a summary of the highlights and conclusions of the study, since the basic paper is rather long and somewhat difficult to read. I understand that Sheldon has been asked by the Director to come up with other alternatives.



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Summary of BOB-CIA-DOD Study on OXCART and SR-71 Programs

Subject study examines four aspects of the OXCART and SR-71 programs: Resources (Aircraft Systems and Costs), Mission Requirements, Need for a Separate OXCART Fleet, and Alternative Programs. The following paragraphs summarize the main findings of the study.

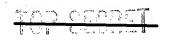
RESOURCES

Aircraft Systems: The OXCART and the SR-71 are almost equal in general flight performance; the only difference is that the OXCART flies at a slightly higher altitude. The reconnaissance capabilities of the aircraft are similar. The OXCART uses several interchangeable single-sensor systems and is, of course, already operational. The SR-71 will have capability for simultaneous operation of several sensors when operational in August 1967.

Costs: The total estimated costs from FY 1968 through 1972 for both aircraft systems are \$1,377 million. Of this total, engine R&D for both systems would be \$125 million, SR-71 costs would be \$764 million, and OXCART costs would be \$488 million. (These are not program costs. See section on alternatives for those costs.)

MISSION REQUIREMENTS

Strategic Reconnaissance: (This term is defined as peacetime reconnaissance primarily of the U.S.S.R., Communist China and their allies.) The OXCART and SR-71 can play at best only a minor role in strategic reconnaissance. Satellite capabilities now exceed normal requirements for target coverage, and new systems will greatly increase these capabilities. Also, satellites present a lower risk of causing an "incident". After mid-1968, advanced drones will probably provide a good capability for reconnaissance of well-defended areas. Should the Soviet Union or Communist China be able to neutralize or destroy reconnaissance satellites, neither the OXCART nor the SR-71 promise to be effective substitutes since they too could



be destroyed or neutralized. These aircraft could be useful, however, for strategic reconnaissance of certain areas outside the Sino-Soviet bloc where sophisticated air defenses deny access to the U-2. In sum, there does not appear to be a strong requirement for the OXCART or the SR-71 in a strategic reconnaissance role. A small fleet of less than half a dozen would be sufficient.

Reconnaissance of Force Mobilization: (This term is defined

as that reconnaissance directed primarily against Communist China and the European Satellites when there are indications that preparations are underway for attack against near-by nations.) For this mission the OXCART and the SR-71 aircraft could be of much greater value. They could provide intense coverage of large border areas on shorter notice and over longer periods of time than existing or programmed reconnaissance satellites. A system or a real-time readout for advanced satellite systems would tend to reduce the advantages of reconnaissance by these aircraft, as will future drone systems particularly the TAGBOARD. In sum, the force mobilization mission will continue to be an important one for the OXCART and SR-71 regardless of developments in the satellite programs. As many as a dozen aircraft could be needed for this mission if a reconnaissance capability in two theaters to support both national and tactical intelligence needs is to be provided.

Reconnaissance for General War Crises: (This term is defined as that reconnaissance directed against the U.S.S.R., and ultimately Communist China, in times of intense crises or in the event of indications of preparations for a strategic attack against the United States or its allies.) For this mission, over the next several years, the capabilities of the OXCART and SR-71 would be much superior to those of satellites or drones. Later in this decade, satellites will become more competitive with these aircraft. In addition, the aircraft defenses of the enemy likely will become more effective against the OXCART and SR-71. These aircraft also could present a high risk of "incident" in an escalating crisis. In sum, the OXCART and SR-71 have considerable value in the immediate future, but this value will diminish over time. The numbers of aircraft planned for this requirement should be conditioned to possible enemy reactions to such over-flights.

SIOP Reconnaissance: (This term is defined as that reconnaissance aimed at the Soviet Union, and ultimately Communist China, after the

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initiation of general war.) The SR-71 fleet and the three OXCART aircraft carrying side-looking radar would be useful for this mission.

General Assessment: The review of mission requirements indicates that during the next several years, the OXCART and the SR-71 will remain uniquely capable in all four of the above missions, subject to improvements in Soviet and Chinese air defenses. Toward the end of the decade, however, certain satellites and drones could supplant these aircraft. A worst-case estimate, i.e., the need to satisfy three of the above missions simultaneously, indicates that about 30 OXCARTS and/or SR-71s would be required over the next several years.

NEED FOR SEPARATE OXCART FLEET

The study contains no conclusions regarding the need for a separate OXCART fleet. It does, however, list several "considerations" which serve to illustrate that the authors could not reach agreement on the need for a separate OXCART fleet. The authors note that the President might be less reluctant to approve the use of the OXCART fleet in peacetime or potential crisis than the SR-71 fleet which is under military sponsorship. The Soviets or Chinese might consider an OXCART over-flight less provocative and might minimize their reactions because of the use of civilian crews and unmarked aircraft. One of the greatest potential difficulties in maintaining separate OXCART and SR-71 fleets is that great confusion could arise in the White House regarding schedules, targeting, etc. in a time of escalating crisis.

The authors also note that the value of a covertaind separate OXCART fleet has been diminshed by the officially exposed SR-71, and that the risk of "incident" is, therefore, not likely to be significantly reduced by maintaining an OXCART separate fleet. In the event of an "incident", however, established military sponsorship would probably reduce the ability of friendly governments to support publicly the need for such reconnaissance by the U.S. The command and communication channels would be equally effective whether under military or CIA control. And finally, CIA channels for dealing with

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ALTERNATIVE OXCART AND SR-71 PROGRAMS

The authors identified three primary alternatives for the decision-makers:

- (1) Maintain the status quo and combine both fleets at currently approved levels. This would provide for two bases and the availability of 29 operational aircraft through 1970. Program costs (aircraft plus support) from FY 1968 through 1972 would be \$2,013 million.
- (2) Moth-ball all OXCART aircraft but maintain a clandestine capability by sharing SR-71 aircraft between SAC and CIA; make certain primary mission assignments to CIA and others to SAC. This alternative would provide for two bases and the availability of 22 aircraft through 1970. Program costs from FY 1968 through 1972 would be \$1,761 million.
- (3) Terminate the OXCART fleet in January 1968, four months after the SR-71 become fully operational and assign all missions to the SR-71 fleet. This alternative would provide for a single base and the availability of 22 operational aircraft through 1970. Program costs from FY 1968 through 1972 would be \$1,648 million.

In arriving at the above alternatives, the authors concluded that by retiring the OXCART fleet, significant cost savings could be made while only slightly reducing the numbers and types of reconnaissance missions which could be conducted simultaneously. They note, however, that a precise determination of the size of the fleet can only be made with more study because of uncertainties regarding attrition

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rate, mission requirements, need for simultaneous missions, and the capabilities of satellite systems, drones and U-2 aircraft to perform certain missions now and in the future.

If it is decided that both the OXCART and SR-71 fleets are to be maintained, the authors believe that it is very questionable that the size of the fleets should be reduced since cost savings would not be significant. In addition, the savings from any form of base consolidation are small, because base support costs for these aircraft are relatively low in comparison with the overall expense of the program. Finally, if the size of the fleets is to be reduced at this time, the authors feel it would be wise to store rather than to destroy those aircraft which are retired, because of the uncertainity as to the factors affecting fleet size.